



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Medicine Lake National Wildlife Refuge
Medicine Lake, Montana
April 11, 1957

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1957

WATER MANAGEMENT PLAN

Submission of a water management report has been delayed in the belief that late winter snows might add an encouraging note to the outlook, but, so far, little encouragement is in sight.

Total precipitation for calendar year 1956 amounted to only 9.35 inches. This is a very noticeable decrease from the 16.95 for 1955, 18.28 for 1954 and 19.08 for 1953.

Snowfall has been almost negligible during the past winter and no spring run off can be expected. Even the headwaters of Big Muddy Creek in southern Saskatchewan cannot be expected to furnish any run-off this spring.

Refuge water levels at freeze-up time in late November and early December, were:

<u>Impoundment</u>	<u>Spill Level</u>	<u>1956 Approved Level</u>	<u>Nov. Level</u>
Katy's Lake	No Spillway	1953.00	Below gauge
No. 4 (Medicine Lake)	1943.02	1943.00	1939.70
No. 6 (Homestead)	1937.85	1937.85	1936.80
No. 10	1945.00	1945.00	1943.53
No. 11	1952.54	1952.54	1950.82
No. 12	1955.93	1954.00	1953.32

Medicine Lake was lowered in late 1956 by withdrawals to maintain a suitable depth in the Homestead Lakes. Early in the winter, an effort was made to further lower the level in Medicine Lake in order to make an attempt at freezing out the heavy carp population. Because of a silt barrier at the mouth of the Diversion Canal, which brings water from Big Muddy Creek, only a small amount of water could be released, and some portions of the lake still held between six and seven feet of water at final freeze up time. Although ice formed during the winter to a depth of 34 inches, it is not believed that much of a "kill" of carp has been accomplished, but so far this is only a conjecture.

The practice followed in recent years, of using Medicine Lake as a storage reservoir for the maintenance of desirable levels in the productive Homestead Unit pools, has been quite satisfactory and it is proposed to follow the same plan in 1957. It is also proposed to continue the same water levels as in 1956 in the other impoundments, if such a plan is approved. The proposed levels are:



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<u>Impoundment</u>	<u>Spill Level</u>	<u>Proposed Max. Level for 1957</u>
Katy's Lake	No Spillway	1953.00
No. 4 (Medicine Lake)	1943.02	1943.00
No. 6 (Homestead)	1937.85	1937.85
No. 10	1945.00	1945.00
No. 11	1952.54	1952.54
No. 12	1955.93	1954.00

Elmo G. Adams.
Elmo G. Adams,
Refuge Manager